

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A lock nut comprising:

a nut body having a plurality of partially circumferential grooves each extending along a same [[radius]] circumference, from a seat surface of the lock nut to a circumferential edge of a threaded hole,

wherein each of a plurality of projections is disposed between [[each]] two of the plurality of grooves and is made from the same material as that of [[a]] the nut body and comprises:

an arcuate outer side face above the seat surface, from an intersection of the seat surface and an outer ~~circumferential radius~~ circumference corresponding to each of the plurality of partially circumferential grooves and toward a center of the nut body,

and an inner side face being an extension of an inner face of said threaded hole, and

a base portion extending radially along the groove from the outer circumferential radius to the threaded hole,

wherein a depth of said groove is configured such that when said nut body is threadably engaged with a bolt and fastened against a head of the bolt, each of the plurality of projections is crushed and does not enter a space between a seat surface the head of the bolt and the seat surface of the nut body.

2. (Previously presented) A lock nut according to claim 1, wherein an extremity of each of said projections is formed with a claw directed toward a center of said nut body.

3. (Currently amended) A lock nut according to claim 1, wherein each of said projections has a screw head thread being formed on said inner side face and threadably [[engaged]] engageable with a threaded part of said bolt.

4. (Currently amended) A lock nut according to claim 1, [[wherein]] configured to connect a

[[said]] fastening nut ~~is connected~~ to the side of each of said projections of said nut body; and wherein a height of each of said projections is set so that a lead angle and a pitch clearance of the threaded hole of said nut body coincide with a lead angle and a pitch clearance of a threaded hole of said fastening nut.

5. (Previously presented) A lock nut according to claim 1, wherein the height of each of said projections is equal to or more than 30% of a length of said nut body in the direction of its central axis.

6. (Previously presented) A lock nut according to claim 1, wherein each of said projections has a tapered mountain-shaped form.

7. (Currently amended) A lock nut according to [[or]] claim 2, wherein each of said projections has a screw ~~head~~ thread being formed on said inner side face and threadably engaged with a threaded part of said bolt.

8. (Currently amended) A lock nut according to claim 2, [[wherein]] configured to connect a [[said]] fastening nut ~~is connected~~ to the side of each of said projections of said nut body; and wherein a height of each of said projections is set so that a lead angle and a pitch clearance of the threaded hole of said nut body coincide with a lead angle and a pitch clearance of a threaded hole of said fastening nut.

9. (Currently amended) A lock nut according to claim 3, [[wherein]] configured to connect a [[said]] fastening nut ~~is connected~~ to the side of each of said projections of said nut body; and wherein a height of each of said projections is set so that a lead angle and a pitch clearance of the threaded hole of said nut body coincide with a lead angle and a pitch clearance of a threaded hole of said fastening nut.

Amendment dated November 8, 2011
After Final Office Action of September 9, 2011

10. (Currently amended) A lock nut according to claim 7, [[wherein]] configured to connect a [[said]] fastening nut ~~is connected~~ to the side of each of said projections of said nut body; and wherein a height of each of said projections is set so that a lead angle and a pitch clearance of the threaded hole of said nut body coincide with a lead angle and a pitch clearance of a threaded hole of said fastening nut.

11. (Previously presented) A lock nut according to claim 2, wherein the height of each of said projections is equal to or more than 30% of a length of said nut body in the direction of its central axis.

12. (Previously presented) A lock nut according to claim 3, wherein the height of each of said projections is equal to or more than 30% of a length of said nut body in the direction of its central axis.

13. (Previously presented) A lock nut according to claim 4, wherein the height of each of said projections is equal to or more than 30% of a length of said nut body in the direction of its central axis.

14. (Previously presented) A lock nut according to claim 7, wherein the height of each of said projections is equal to or more than 30% of a length of said nut body in the direction of its central axis.

15. (Previously presented) A lock nut according to claim 8, wherein the height of each of said projections is equal to or more than 30% of a length of said nut body in the direction of its central axis.

16. (Previously presented) A lock nut according to claim 9, wherein the height of each of said projections is equal to or more than 30% of a length of said nut body in the direction of its central axis.

17. (Previously presented) A lock nut according to claim 10, wherein the height of each of said projections is equal to or more than 30% of a length of said nut body in the direction of its central axis.
18. (Previously presented) A lock nut according to claim 2, wherein each of said projections has a tapered mountain-shaped form.
19. (Previously presented) A lock nut according to claim 3, wherein each of said projections has a tapered mountain-shaped form.
20. (Previously presented) A lock nut according to claim 4, wherein each of said projections has a tapered mountain-shaped form.